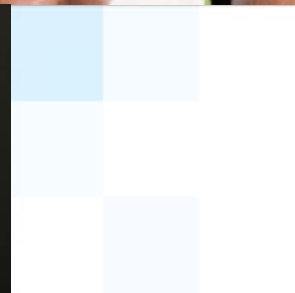
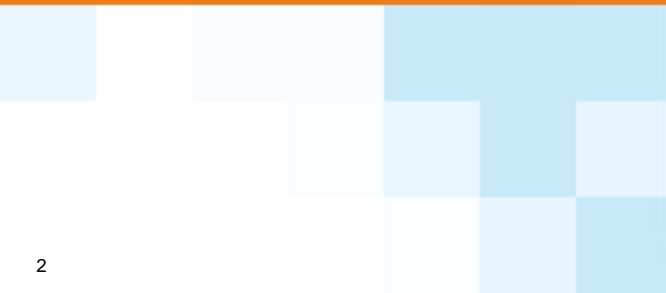




Building Personalized Health Solutions



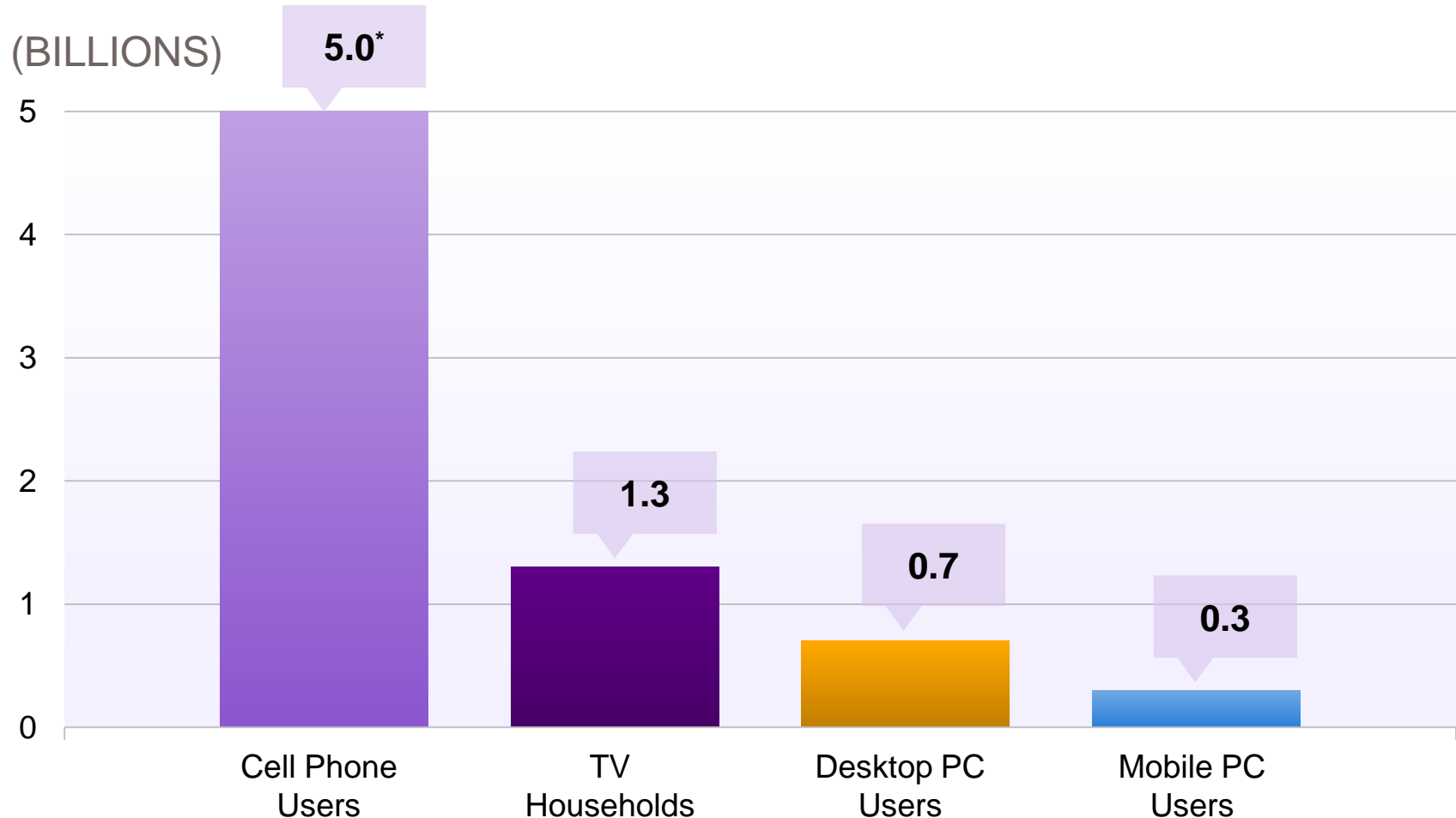
Donald Jones
Vice President Wireless Health
Global Strategy & Market Development



Collapsing Time and Space in Health Care

More Devices Than Any Other Computing or Consumer Electronics Device Globally

MORE THAN 3 BILLION MORE DEVICES



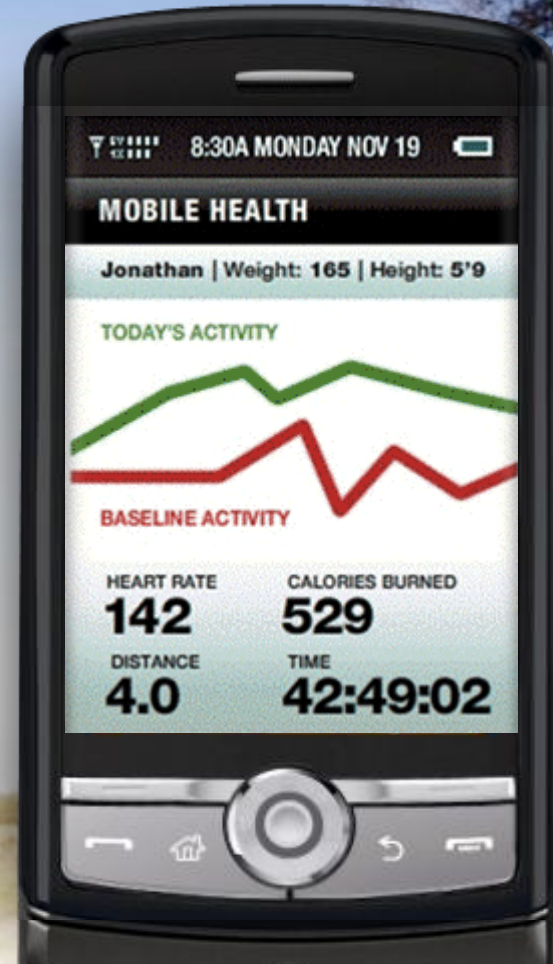


- ECG
- Smart Band Aids
- Motion

- Blood Pressure, Pulse
- Continuous Glucose

- Smart Pills or Internal Sensors

- Weight / Body Composition
- Environmental Sensors



Wireless Mobile Devices and Biosensors Will Transform Healthcare

What is Qualcomm Role in Wireless Health?

- Build demand, create market pull and help our partners create viable solutions
- Identify missing technology elements that Qualcomm is uniquely positioned to solve – e.g. ultra low power high band width radios, ranging, peer to peer, compressed sensing and noise reduction, IEM module designs, market middle ware
- New service platforms which enable many health solutions

Started with Southern California Assets

- Largest cluster of wireless companies in the world
- Second largest cluster of biotech and med device companies in the world
- 38 Bio-Medical Research Institutes in San Diego, including The Salk, Scripps Research, Sanford Burnham and Craig Venter Institutes
- A wireless health dedicated Qualcomm CEO
- A world renown physician – Eric Topol, MD
- A desire to enable connected health solutions with our licenses and technologies



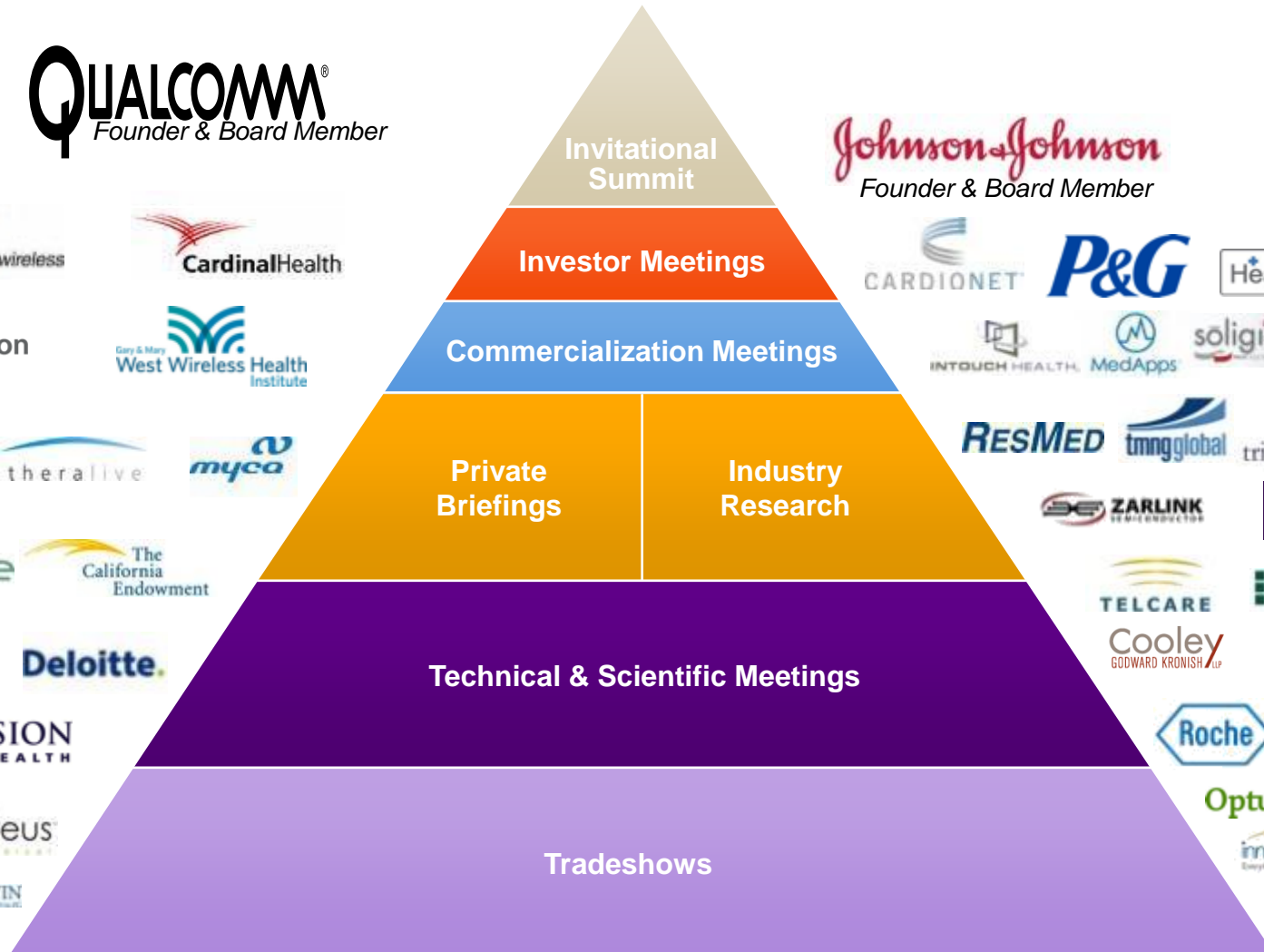
> An Ecosystem of Partners

Building Wireless Health International Partnerships



QUALCOMM®
Founder & Board Member

Johnson & Johnson
Founder & Board Member



Where Are We Now?

- Three world class wireless health research institutes
 - West Wireless Health, UCLA Wireless Health and USC Body Computing Institutes – soon a 4th? A 5th?
- First physician masters in wireless health with The Scripps Reach Institute
- First engineering masters in wireless health with Case Western Reserve University
- Four Qualcomm Wireless VC investments, almost 20 Wireless Reach health grants and a Joint Venture
- Over 100 wireless health companies in San Diego & 300 worldwide – and an multi-Billion dollar industry
- The first XPrize in Wireless Health



> Innovative Solutions



Everything Modules deliver affordable,
r medical and consumer health solutions

Reinventing Established Services

Lifecomm™



- One-Touch Emergency Button
- Two-Way Voice Communications
- Audible Alert Notifications
- Always On

A Qualcomm , Hughes Telematics
and AMAC Joint Venture

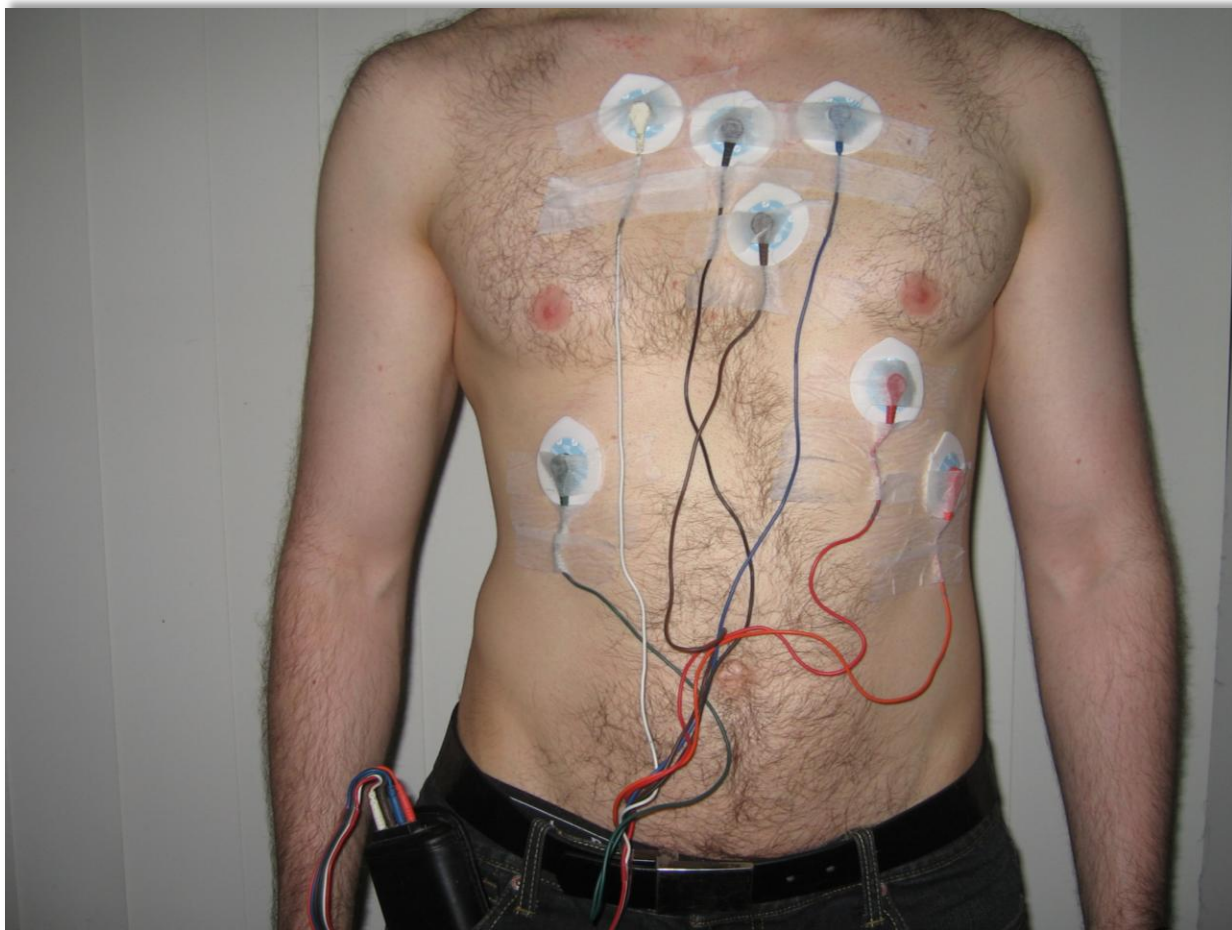
Inventing New Devices for Old Services

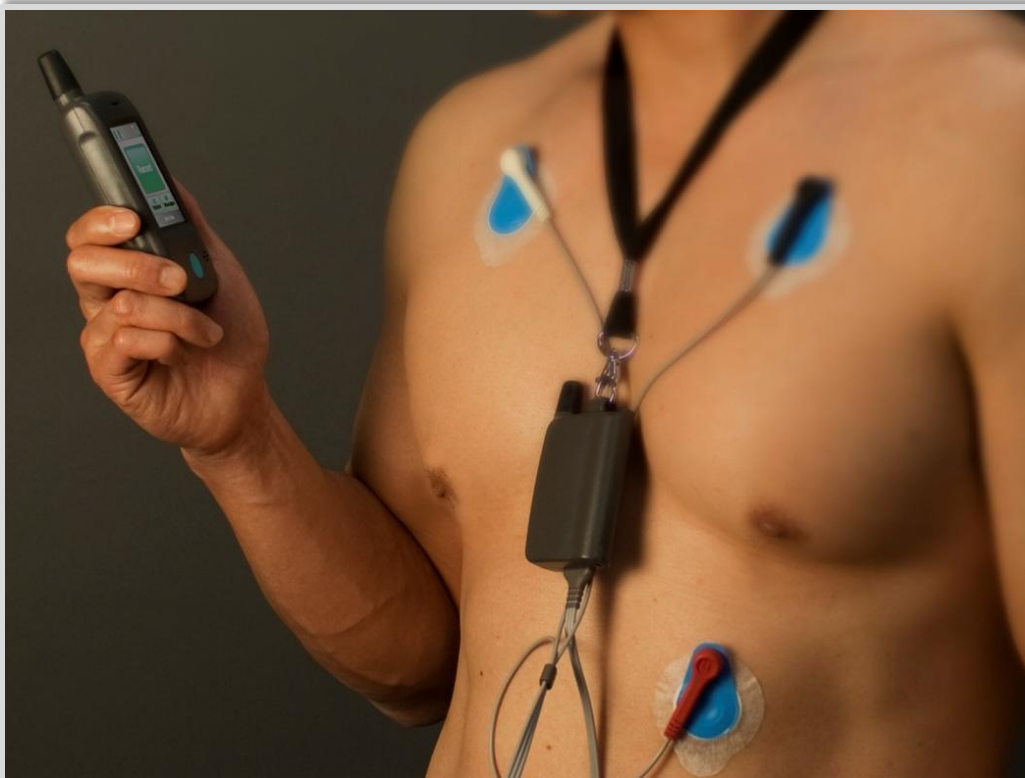


Collaborating on New Devices for New Business Models



Holter Monitor





- ECG
- Respiratory Rate
- Heart Rate



- Heart Rate
- Fluid Status
- Activity Level
- Posture
- Respiratory Rate
- Arrhythmia Detection
- Temperature
- ECG



- ECG
- Heart Rate

Scope-to-Scope Communication



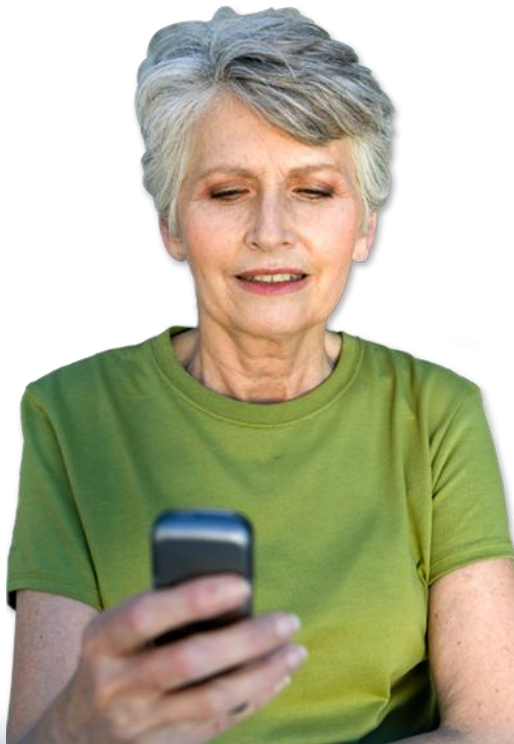


- Voice capabilities
- Camera
- Blood Pressure, Blood Glucose, Cholesterol, ECG
- 24-hour response to ECG readings
- Virtual health records
- Global Physician Network



- Real-time data from Hospital ICU and Maternal-Fetal Monitors

Phone Reminds You



- Confirms Compliance with Loved Ones
- Drug-to-Drug Interactions
- Convenient Medication List Management
- User Survey Surveillance Features



Qualcomm Incorporated. Proprietary & Confidential



Nurses Remind You



jitterbug[®]

- Live Nurse Service
- Wellness Calls
- Heart Healthy Tips
- Medication Compliance



By

 **greatcall**[®]
people you can count on[™]

Pill Bottle Reminds You



VITALITY™

- Medication Reminders
- Automated Alerts
- Rx Refills

Pills Remind You



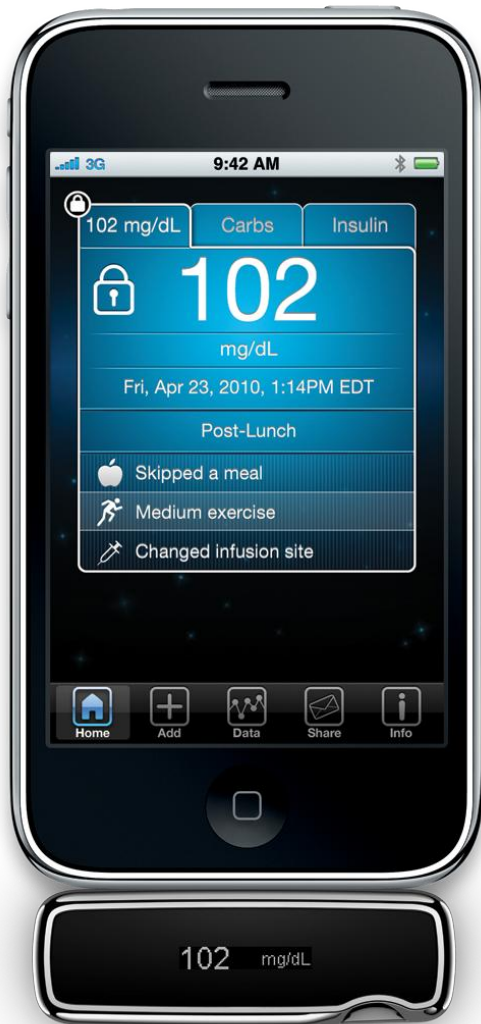
- Compliance and Activity Monitoring
- Lot #, Dosage and Manufacturer
- Time and Date

On Your Phone



- Enabling Self Management
- Automated coaching
- Behavioral algorithms

With Your Phone



sanofi aventis

Because health matters

- Track blood glucose, carbs and insulin
- Keeps caregivers and loved ones connected
- Builds relationship with consumer and pharma

On Your Body



- Continuous Blood Glucose
- Ultimate self management tool

With the Phone Inside



- Improved testing compliance
- Improved glucose control
- Reduced risk of complications
- Auto-logging of data
- Testing confirmation to caregivers
- Simple supply ordering

In Your Body



- Continuous tracking & delivery of insulin
- Continuous tracking of blood glucose
- Activity and food intake tracking
- Alerts



W I L L E D

Living
by

NUMBERS

1,890
Metabolic rate

202
Max heart rate

Track your data.
Analyze your results.
Optimize your life.

15.5%
Body fat

601



Your Score



Obstetrics Yesterday



Obstetrics Today



GE Healthcare



Obstetrics Tomorrow



DuoFertility
Advanced Fertility Monitor

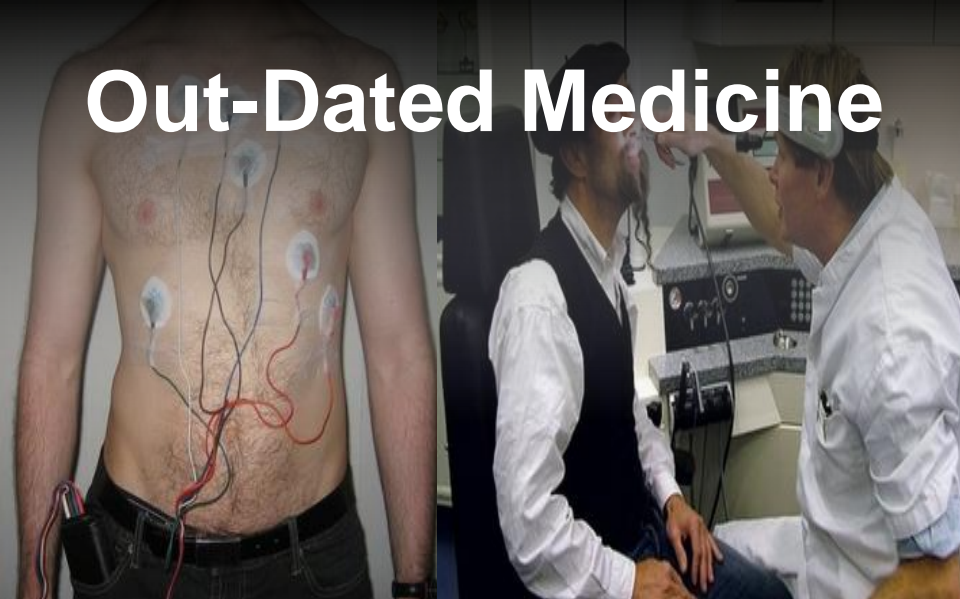
Repurposing of Sensors – and the Rise of Multi-Variable Clinical Analytics

- Fertility enabled by core temperature break through
- Leads to clinical work in multiple applications
- Pediatrics
- Inpatient monitoring for infection control
- Post hospital discharge monitoring
- Medication titration



Sensor combinations drive predictive modeling

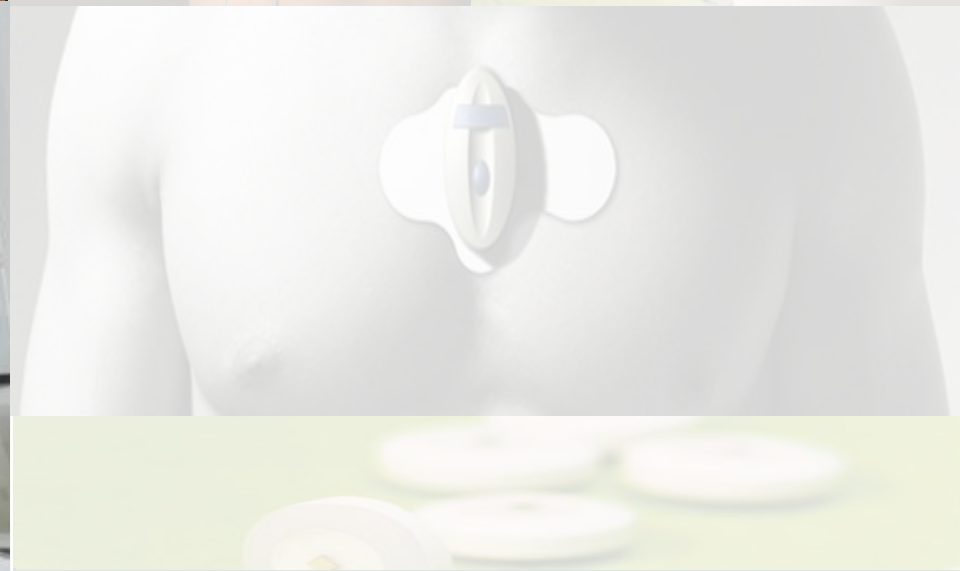
Out-Dated Medicine



Modern Medicine

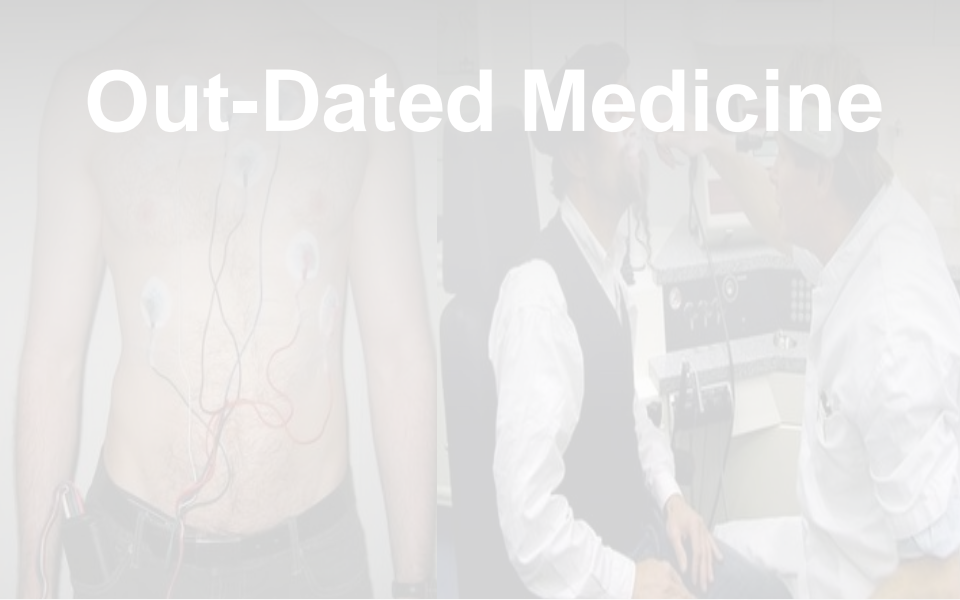


Disconnected Health Care Solutions



Connecting the Unconnected

Out-Dated Medicine



Modern Medicine



Disconnected Health
Care Solutions



Connecting the
Unconnected

Tricorder Competition Criteria



LOW-COST
DIAGNOSIS

MINIMALLY
INVASIVE

RAPID

PORTABLE

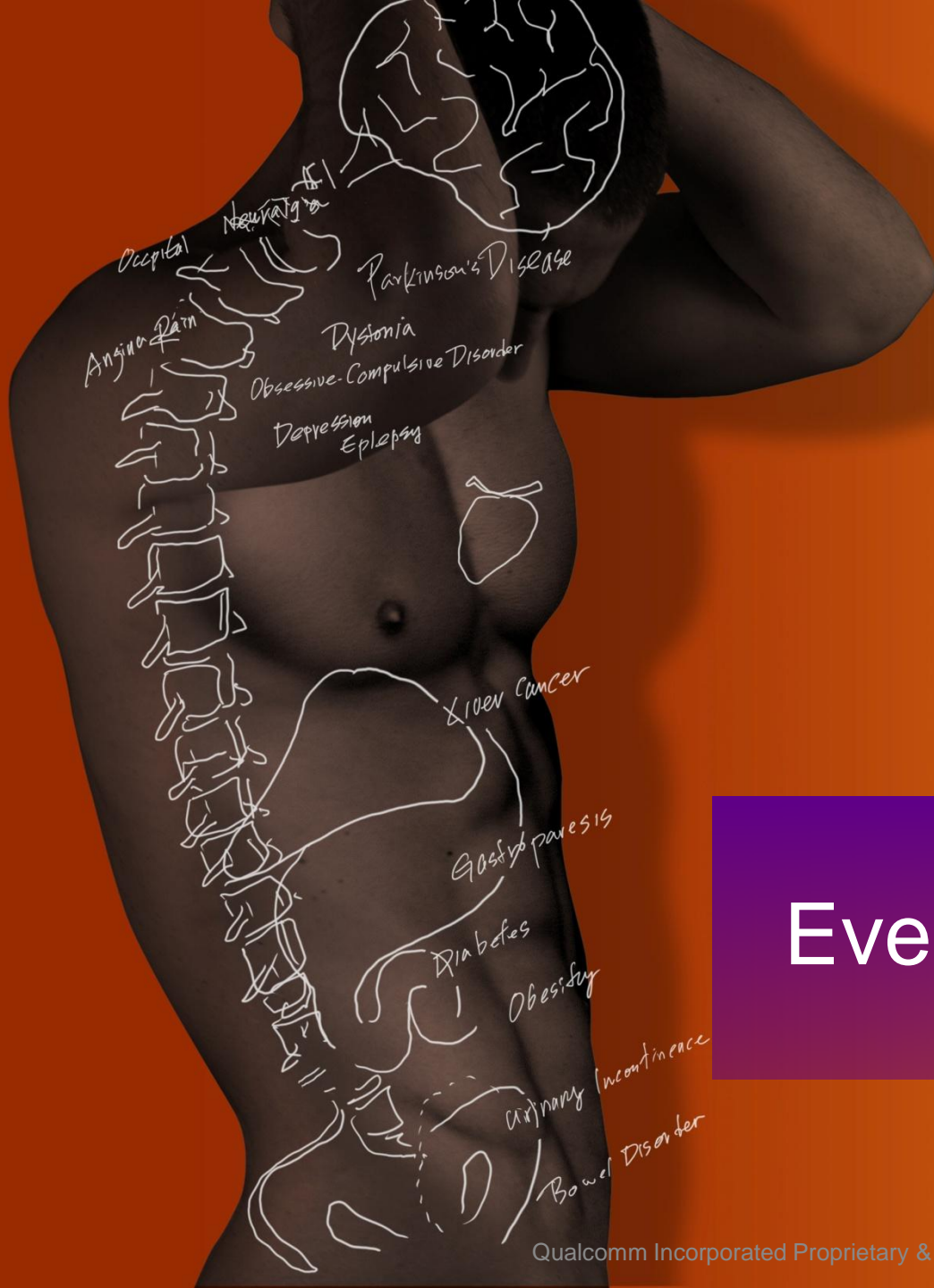
SCALABLE

Personal Supply Chain ManagementSM



Personalization

Convenience, Compliance and Cost Savings



Every Body on the Netsm